

**California Regional Water Quality Control Board
Santa Ana Region**

December 17, 2004

Item: XX

Subject: Public Hearing: Consideration of Adoption of Proposed Basin Plan Amendment – Incorporation of Total Maximum Daily Loads for Nutrients for Lake Elsinore and Canyon Lake – Resolution No. R8-2004-0037

DISCUSSION

On May 21, 2004, staff of the California Regional Water Quality Control Board, Santa Ana Region (Regional Board) issued a staff report entitled “Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Loads”. The report proposed that the Regional Board consider amendment of the Implementation Plan of the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to incorporate the proposed TMDLs, which require actions to reduce nutrient discharges to Lake Elsinore and Canyon Lake.

On June 4, 2004, the Regional Board held the first public workshop to receive evidence and testimony on the proposed Lake Elsinore and Canyon Lake Total Maximum Daily Loads (TMDLs). Based on both written and oral comments received from the public, staff revised the proposed TMDLs and responded to comments received prior to, during and after the June 4, 2004 public workshop.

On September 17, 2004, the Regional Board conducted a second public workshop to receive further testimony on the revised TMDLs. Staff revised the Basin Plan Amendment language (Attachment to Tentative Resolution No. R8-2004-0037), and prepared responses to the written and oral comments received. The staff responses to comments received during and after the September 17, 2004 public workshop are included in Attachment B. Attachment C contains the CEQA checklist. Copies of the written comments are included in Attachment D.

In summary, the proposed TMDLs include:

- Interim and final numeric targets;
- Wasteload Allocations (WLAs) for point source discharges and Load Allocations (LAs) for nonpoint source discharges;
- An Implementation plan and schedules for compliance with the TMDLs, numeric targets, WLAs and LAs; and,
- A monitoring plan and schedule to assess the effectiveness of the TMDLs.

In response to comments by the stakeholders, particularly Riverside County Flood Control and Water Conservation District, staff acknowledges that the science supporting the interim and final TMDL numeric targets for total phosphorous and the final TMDL numeric target for total nitrogen (collectively, the numeric targets) specified in the proposed BPA is preliminary. Where science was lacking, Staff selected numeric target values conservatively for nutrients. Staff believes that it is feasible to achieve the interim TMDL targets, however, compliance with the final

TMDLs is more problematic and will require collaboration among the stakeholders and identification and implementation of creative pollutant control and trading measures.

Based on the comments received on the proposed nutrient TMDLs, staff proposes the following major changes to the TMDLs/Basin Plan Amendment.

Addition of Task 3. Identify Agricultural Operators

Comments were received concerning the organizational structure for the stakeholders to work together to implement the TMDLs. It was suggested that the Regional Board should facilitate the TMDL implementation organizational effort by clearly identifying all responsible parties, specifically agricultural operators (Attachment B, Comment 12, 24).

In response, Staff recommends the addition of a new task (new Task 3) in Section E. TMDL Implementation, that specifies that the Regional Board will identify agricultural operators within one month after the Basin Plan Amendment receives final approval from the US EPA.

Revisions to compliance dates for certain dischargers

Based on comments received (Attachment B, Comment 14), staff proposes to modify the compliance dates for proposed implementation plan requirements for the Lake Elsinore in-lake sediment nutrient reduction plan (Section E. TMDL Implementation, Task 10, previous Task 9), the Canyon Lake in-lake sediment treatment evaluation (Task 11, previous Task 10), and the watershed and Canyon Lake and Lake Elsinore In-lake Model updates (Task 12, previous Task 11). Revision of these compliance dates would allow additional time for the responsible parties to develop appropriate plans, develop agreements, work within their fiscal budgeting process, etc. These revised compliance dates are shown in Table 5-9s in Attachment A to Tentative Resolution No. R8-2004-0037.

Monitoring Program Requirements – Flexibility Language Added

It was recommended (Attachment B, Comment 14) that the schedule for Task 4 (submittal of watershed-wide, Lake Elsinore and Canyon Lake nutrient monitoring plans) be extended by one year to allow for the stakeholders to work together to establish an organizational structural, secure funds and hire consultants to prepare the plans. Staff believes that a delay of one year is not warranted and would result in unacceptable gaps in data collection. Staff recommends that the proposed amendment be revised to require that initial monitoring plans/schedules that satisfy the minimum monitoring requirements specified in Task 4.1.,4.2 and 4.3 be submitted no later than 3 months from approval of the BPA, and that revised plans/schedules, if necessary, be submitted no later than 15 months after BPA approval.

Additional Cost Information Associated with the Implementation of the Nutrient TMDLs for Lake Elsinore and Canyon Lake

Additional comments were received from Riverside County Flood Control and Water Conservation District concerning the economic implications of the proposed TMDLs (Attachment B, Comment 21). As shown in Attachment B, Staff has responded to these comments in detail. The additional cost information provided by the District is presented below.

Cost Estimates (provided by the Riverside County Flood Control and Water Conservation District)

Based on the EPA's Urban Nutrient Reduction BMP Costs (1999) referenced in the Regional Board Staff Report, the following table estimates the costs associated with the construction of nutrient reduction BMPs in the San Jacinto River Watershed to address the wet year flow volume (139,345 ac ft or approximately 6 billion cubic feet). These cost estimates presume that each stakeholder in the watershed tributary to Canyon Lake would implement the specified BMP. Urban Stakeholder BMP costs, based on a rough estimation of land use (both urban areas and non-urban areas tributary to urban systems) and runoff rates, could represent between 50-60% of the total cost identified below:

BMP Construction Costs to Treat Wet Year Flow

BMP	EPA, 2003 \$s (per ft ³ treated)	Cost, 2003 \$s (V _{wet} = 6 Billion ft ³)
Constructed Wetland	\$0.60 - \$1.13	\$ 3.6 B – \$ 6.78 B
Infiltration Trench	\$4.00	\$ 24 B
Infiltration Basin	\$1.18	\$ 7.08 B
Sand Filter	\$2.72 - \$5.96	\$ 16.3 B – \$ 35.7 B
Bioretention	\$4.79	\$ 28.7 B
Retention & Detention Basin	\$0.45 - \$0.90	\$ 2.7 B – \$ 5.4 B
Grass Swale	\$0.45	\$ 2.7 B
Filter Strip	\$0.00 - \$1.18	\$0 – \$ 7.1 B

In addition, costs are provided for BMPs to treat moderate year events:

BMP Construction Costs to Treat Moderate Year Flow

BMP	EPA, 2003 \$s (per ft ³ treated)	Cost, 2003 \$s (V _{mod} = 253 M ft ³)
Constructed Wetland	\$0.60 - \$1.13	\$ 152 M – \$ 286 M
Infiltration Trench	\$4.00	\$ 1,000 M
Infiltration Basin	\$1.18	\$ 299 M
Sand Filter	\$2.72 - \$5.96	\$ 688 M – \$ 1,500 M
Bioretention	\$4.79	\$ 1,200 M
Retention & Detention Basin	\$0.45 - \$0.90	\$ 114 M – \$ 228 M
Grass Swale	\$0.45	\$ 114 M
Filter Strip	\$0.00 - \$1.18	\$0 – \$ 299 M

The above tables do not include land acquisition, design, geotechnical testing, legal fees, and other unexpected or additional costs, such as maintenance and operation of each BMP. It should be noted that in the arid climate of the San Jacinto River Watershed, BMPs such as constructed wetlands, grass swales and filter strips would require a reliable year-round supply of water, aside from storm and urban runoff, in order to operate.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS

The basin planning process has been certified by the Secretary of Resources as functionally equivalent to the requirement for the preparation of an Environmental Impact report or Negative Declaration. The Regional Board is required to complete an environmental assessment of any changes the Board proposes to make to the Basin Plan. Staff prepared an Environmental Checklist (Attachment B to the May 2004 TMDL Report and Attachment C to the September 17, 2004 staff report), determining that there would be no significant adverse environmental impacts from the proposed Basin Plan Amendment. Staff has reviewed the environmental checklist in light of the proposed changes to the Basin Plan amendment/TMDL discussed above. No changes to the environmental checklist are warranted; the staff determination that there would be no adverse environmental impacts from the proposed amendment remain valid.

RECOMMENDATION:

Adopt Resolution No. R8-2004-0037, amending Chapter 5 of the Basin Plan to incorporate the nutrient TMDLs for Lake Elsinore and Canyon Lake shown in the Attachment to the Resolution.